UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,409	02/13/2002	Hideaki Tanaka	111867	3980

25944 7590 03/04/2005

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER	
MACKEY, JAMES P	
ART UNIT	**PAPER NUMBER**
1722	

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/073,409	TANAKA, HIDEAKI	
	Examiner	Art Unit	
	James Mackey	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 19-21* is/are pending in the application.

4a) Of the above claim(s) *1-11 and 13-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12 and 19-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12 January 2005 has been entered.

2. Claims 1-11 and 13-16 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 21 November 2003.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the original specification does not provide proper antecedent basis for the slit-like aperture being "arranged near a junction of said ridges" as is now claimed in claim 12 (it is noted that original Figure 15 does show the slit-like apertures of the second vent means being arranged adjacent a junction of the ridges; see *In re Wolfensperger*, 133 USPQ 537, 542, holding that amendment of the specification to add statements conforming to originally filed drawings is permissible).

Applicant should avoid introducing new matter in responding to this objection.

4. Claim 12 is objected to because of the following informalities: in claim 12, "slit like" (bridging the last two lines of the claim) should be hyphenated. Appropriate correction is required.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 12 and 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "near" in claim 12 (at the last line of the claim) is a relative term which renders the claim indefinite. The term "near" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Note that when a word of degree is used in a claim, the specification must provide some standard for measuring that degree, since without proper definitional guidelines, a skilled artisan could not determine the metes and bounds of the claimed invention, *Seattle Box. Co., Inc. v. Industrial Crating & Packing, Inc.*, 221 USPQ 568, 574. Claims 19-21 are rejected as being indefinite due to their dependence on indefinite claim 12.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 12 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication 2001-18235 in view of Heintz, Jr. (U.S. Patent 2,756,460), Japanese Publication 5-138656 and Schmaderer et al. (U.S. Patent 5,066,209).

Japan '235 discloses the vulcanizing mold substantially as claimed, comprising a plurality of tread mold pieces 10 each having end surfaces 12 on both sides of a molding surface 11 as seen in the circumferential direction of the tire, the end surfaces each including an edge region situated adjacent to the molding surface to extend in a width direction of the tire tread portion, the mold pieces each comprising a first vent means being in communication with atmosphere and comprised of a narrow gap 17 formed by continuously removing the edge region over substantially the entire width of the tire tread portion, the narrow gap having a width within the claimed range (claim 19) and extending along that portion of the molding surface which corresponds to a land in the tire tread portion (claim 21), the first vent means further comprising a groove 18 formed in each of the end surfaces at a location spaced from the molding surface, the groove being wider than the narrow gap and in communication with the narrow gap and atmosphere (claim 20). Japan '235 does not explicitly disclose a second vent means comprised of fine slit-like apertures in a top surface of tubular pin members which forms part of the molding surface of the mold piece at a region corresponding to a land in the tire tread portion, the second vent means being isolated from the first vent means and being in communication with atmosphere, and does not disclose the aperture of the second vent means as being "arranged near a junction" of the ridges of the tire tread mold.

Heintz, Jr. discloses a vulcanizing mold comprising a plurality of fine vent apertures 20 in communication with atmosphere (col. 2, lines 13, 57), the vent apertures being formed in the molding surface at a region corresponding to a land in the tire tread portion and spaced from the end surfaces of the tread mold pieces. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Japan '235 by providing the mold pieces with second vent means comprised of a plurality of fine vent apertures, as disclosed in Heintz, Jr., in order to fully vent trapped air pockets between mold ribs at a location spaced from the end surfaces of the tread mold pieces, and thereby avoid surface imperfections in the product tire, especially considering that Japan '235 discloses the need for adequate venting of trapped air pockets (via vent ridges 15 and cross vents 16).

Japan '656 discloses a vulcanizing mold comprising fine vent apertures in the form of a slit-like aperture in a top surface of a tubular pin member, the top surface forming part of the molding surface corresponding to a land in the tire tread portion. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Japan '235, in combination with Heintz, Jr., by providing the fine aperture of the second vent means as a slit-like aperture in a top surface of a tubular pin member, as disclosed in Japan '656, in order to facilitate venting while avoiding spue (spew) formation, and in order to easily provide a vent structure in the tire mold piece. With regard to the dimensions of the vent aperture (claim 12), it would have been obvious and well within the level of ordinary skill in the art to provide the vent aperture as disclosed in Japan '656 of such dimensions in order to maximize venting capability while minimizing clogging by rubber, especially considering the teaching of Japan '235 that vent gap 17 "width t" should be from 0.005 to 0.05 mm and vent gap 17 "depth v" should be 1-2 mm.

Schmaderer et al. disclose a vulcanizing mold comprising slit-like vent apertures 18, 46, 50 (which may have a gap width of 0.05 mm; col. 3, lines 46-47) located adjacent a junction of the ridges 14, 16 of the tire tread mold piece (see col. 4, lines 53-57). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Japan '235, in combination with Heintz, Jr., by providing the venting aperture adjacent a junction of the ridges of the tire tread mold piece, as disclosed in Schmaderer et al., in order to fully vent any air pockets at ridge corner regions.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Utech can be reached on 571-272-1137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Mackey
Primary Examiner
Art Unit 1722
3/1/05

jpm
March 1, 2005